



## 901 *The Markman* Hearings in Perspective

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## Faculty Biographies

### John F. Anderson

John F. Anderson is a director and shareholder in the law firm of Richards McGettigan Reilly & West, P.C. in Alexandria, VA. He is trial lawyer and has handled numerous patent infringement actions and intellectual property disputes in the United States District Court for the Eastern District of Virginia, also known as "The Rocket Docket".

Prior to joining Richards McGettigan, Mr. Anderson was a partner in the Alexandria office of McGuire Woods Battle & Boothe (now McGuireWoods). Mr. Anderson clerked for the Honorable James H. Michael, Jr. in the United States District Court for the Western District of Virginia following law school.

He is a director of the Northern Virginia Chapter of the Federal Bar Association and is a member of the Virginia and District of Columbia Bar Associations and the Alexandria Bar Association. Mr. Anderson is also a member of the Fourth Circuit Judicial Conference. He is a trustee of the Sky Alland Scholarship awarded annually to a student attending the University of Virginia and is on the legal committee for the Road Runners of America.

Mr. Anderson received a BS and JD from the University of Virginia.

### Frederick R. Jorgenson

Frederick R. Jorgenson is associate general counsel at Fujitsu Network Communications, Inc., a major subsidiary of the Japanese technology conglomerate Fujitsu Limited. His technology background is generally related to communications, but also includes several years in semiconductor fabrication and devices. Mr. Jorgenson's practice embraces all aspects of intellectual property law, and his experience includes protection of company intellectual property and participation in the negotiation and structuring of acquisition, joint venture, and other agreements with values in excess of several hundred million dollars. Significant offensive and defensive licensing responsibilities have included negotiations, as well as validity and infringement determinations.

Prior to joining Fujitsu, Mr. Jorgenson worked for Harris Corporation including time with a Harris/GE joint venture. Before pursuing a corporate legal career, he was an attorney at the intellectual property law firm of Bell, Seltzer, Park & Gibson (now merged into Alston & Bird LLP). Mr. Jorgenson was a patent examiner at the U.S. Patent and Trademark Office, examining patent applications in the telecommunications arts prior to attending law school.

Mr. Jorgenson is a member of the Florida Bar and the North Carolina Bar.

He received his BSEE from Florida International University, the state university of Florida in Miami and his JD with honors from Florida State University.

### The Honorable Roderick R. McKelvie

Roderick R. McKelvie is a former United States District Judge in Wilmington, Delaware.

His published opinions include *Johns Hopkins University v. CellPro* (Patent Litigation, Willful Infringement); *Joint Stock Soc. Trade House of Descendants of Peter Smirnoff, Official Purveyor to the Imperial Court v. Heublein, Inc.* (Trademark Litigation, Jurisdiction and Change of Venue); *Johns Hopkins University v. Cellpro* (Patent Litigation, Bifurcation of Issues to be Tried); and *Thorn Emi North America, Inc. v. Micron Technology, Inc.* (Patent Litigation, Discovery on Advice of Counsel Defense).

After law school, Judge McKelvie served as a judicial clerk to the Honorable Caleb R. Layton, III, United States District Judge, District of Delaware.

Judge McKelvie received his undergraduate degree from Harvard University and his legal degree from the University of Pennsylvania.

### Liam O'Grady

Liam O'Grady is a partner in the IP Specialties Practice Group of Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P. in Washington, DC, where he tries patent and trademark infringement cases in federal courts throughout the United States.

Mr. O'Grady joined the firm after gaining 12 years of trial experience as a former Assistant U.S. Attorney. He has tried more than 100 jury trials, many of them in the U.S. District Court for the Eastern District of Virginia, the "Rocket Docket." During his tenure with the U.S. Attorney's Office, Mr. O'Grady served as lead attorney in scores of criminal trials. He served as the lead Task Force attorney for the Narcotics and the Organized Crime Sections, and as chief of the Criminal Division of the U.S. Attorney's Office. He has been involved with dozens of homicide cases, including the prosecution of a group responsible for the murder of an Alexandria, Virginia police officer.

In addition to his legal practice, Mr. O'Grady is an associate professor at The George Washington University Graduate School of Forensic Science. He has also been an adjunct professor and guest lecturer at the George Mason School of Law in the areas of criminal procedure and trial advocacy, and a lecturer at the Attorney General's Advocacy Institute. Mr. O'Grady is involved in the ABA, the Arlington Bar Association, the Virginia State Bar Section on Criminal Law, and the American Intellectual Property Law Association.

Mr. O'Grady received a BA from Franklin & Marshall College and a JD from George Mason University Law School.

## One view of *Markman* and its Progeny

### I. Introduction

Prior to 1995, whether claim construction was a question for the judge or jury was uncertain. Some cases stated that the interpretation and construction of patent claims was a question of fact to be decided by a jury. *See Tol-O-Matic, Inc. v. Proma Produkt-Und Marketing Gesellschaft mbH*, 945 F.2d 1546, 1550-52 (Fed. Cir.1991) (stating deference is due to jury's claim construction); *Palumbo v. Don-Joy Co.*, 762 F.3d 969, 974 (Fed. Cir. 1985) (when the meaning of a claim term is disputed a "factual question arises, and construction of the claim should be left to the trier or jury under appropriate instruction."). Other cases stated that the claim construction inquiry was a question of law to be decided by the judge. *See SRI Int'l v. Matsushita Elec. Corp. of Am.*, 775 F.2d 1107, 1118-22, 1138-40 (Fed. Cir. 1985) (en banc); *SSIH Equip. S.A. v. United States Int'l Trade Comm'n*, 718 F.2d 365, 376 (Fed. Cir. 1983); *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 770-71 (Fed. Cir. 1983); *Fromson v. Advance Offset Plate, Inc.*, 720 F.2d 1565, 1569-71 (Fed. Cir. 1983).

In *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996) the Supreme Court stated that the interpretation and construction of patent claims is a matter of law to be determined exclusively by the courts. *See Markman*, 517 U.S. at 372 ("We hold that the construction of a patent, including terms of art within its claim, is exclusively within the province of the court."). The Court in *Markman* determined that a judge with legal training is better equipped to construe patent claims than lay jurists and that taking this issue out of the hands of the jury did not violate the 7th Amendment right to a jury trial. *Id.* at 388-89. The Court thus added the term "*Markman*" to the lexicon and engrafted a new proceeding, "the *Markman* hearing," on patent litigation. The *Markman* decision began a revolution in the way patent cases are tried and decided.

The Supreme Court intended to promote uniformity in claim construction with the *Markman* decision. *Markman*, 517 U.S. at 390 ("[W]e see the importance of uniformity in the treatment of a given patent as an independent reason to allocate all issues of construction to the court.") It was generally recognized by judges that juries have a difficult time with claim interpretation. *See, e.g.*, Judicial Panel Discussions on Sciences and the Law, 25 Conn. L. Rev. 1127, 1144 (1993) (statement of Judge Covello, Dist. of Conn.). The *Markman* decision was expected to lead naturally to early settlements, reduced litigation costs, decreased pendency periods, and increased judicial efficiency. One of the first district court decisions addressing the effects of *Markman* opined that "[t]he Federal Circuit's decision in *Markman* will undoubtedly change the face of patent litigation

as it clearly did in this case," and predicted that "a case could be appealed to the Federal Circuit only months after the complaint is filed." *Elf Atochem North America, Inc. v. Libbey-Owens-Ford Co.*, 894 F. Supp. 844, 857 (D. Del. 1995). But there were also questions presented regarding the propriety of making claim construction a question of law solely for the court. *See* Teresa Riordan, Patent Court's Ruling Is Seen As Limiting Role of Juries, N.Y. Times, Apr. 8, 1995. Also, there has been recent empirical evidence to suggest that district court judges often

“improperly” construe patent claims, demonstrating that the quest for consistency, resource conservation, and uniformity may not be furthered by *Markman* as much as was predicted. See Kimberly A. Moore, Are District Court Judges Equipped to Resolve Patent Cases?, 15 Harv. J. of Law & Tech. 1 (2001); Christian Chu, Empirical Analysis of the Federal Circuit’s Claim Construction Trends, 16 Berkeley Tech. L.J. 1075 (2001). The significance of *Markman*, however, remains. This paper looks at how courts have dealt with claim construction procedurally in light of the *Markman* decision and the effects of *Markman* determinations in subsequent litigation.

## II. *Markman* in Practice

Neither the Supreme Court nor the Federal Circuit *Markman* decisions say anything about when claims must be construed, how or when a claim construction proceeding should occur, or what evidence may be presented for the purposes of claim construction. Indeed, from the issuance of its decision in *Markman* to date, the Federal Circuit has made it clear that district courts have considerable discretion as to whether, when, and how to conduct claim construction proceedings. See, e.g., *Vivid Techs. v. Am. Sci. & Eng’g Inc.*, 200 F.3d 795 (Fed. Cir. 1999) (finding that the district court acted within its discretion in denying discovery with respect to claim construction issues); *Sofamor Danek Group, Inc. v. Depuy-Motech, Inc.*, 74 F.3d 1216, 1221 (Fed. Cir. 1996).

Early on, following the Federal Circuit decision in *Markman*, but before the Supreme Court ruled, the Federal Circuit in *Exxon Chemical Patents, Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1556 (Fed. Cir. 1995), noted, without commenting, that claim construction was rendered by the trial court in that case after the close of all the evidence. The Federal Circuit stated that “no matter when or how a judge performs the *Markman* task, on appeal we review the issue of claims interpretation independently without deference to the trial judge.” *Id.* Shortly thereafter, in *Sofamor Danek Group*, 74 F.3d at 1221, the Federal Circuit stated that “*Markman* does not obligate the trial judge to conclusively interpret claims at an early stage in a case. A trial court may exercise its discretion to interpret the claims at a time when the parties have presented a full picture of the claimed invention and prior art.”

Given this freedom by the Federal Circuit, and because the facts and circumstances of each case vary greatly, district courts vary from case to case and jurisdiction to jurisdiction as to when and how claims are construed. This was explicitly recognized by the Federal Circuit in *Nutrinova Nutrition Specialties & Food Ingredients GmbH v. Hangzhou Sanhe Food Co.*, 224 F.3d 1356 (Fed. Cir. 2000). There, the court stated that “[t]rial courts are generally given discretion to determine when decisions concerning procedural matters are to be decided. Trial courts have this discretion because the facts of every case are different, and the appropriate time for a trial court to make a decision concerning a procedural matter depends on the circumstances.” *Id.* at 1360.

Though the Federal Circuit has refused to adopt particular procedures for conducting *Markman* determinations, some district courts have done so and others have or are considering implementing such procedures. For example, the Northern District of California has

implemented rules detailing procedures in patent cases, including conducting *Markman* hearings before the close of discovery. See Pat. L.R. 4-1 to 4-6. The procedures in the Northern District Court of California also preclude summary judgment before the claims are construed. *Fakespace Labs v. Robinson*, 2000 U.S. Dist. LEXIS 17678, \*3 (N.D. Cal. 2000) (“At the same time, Fakespace also filed motions for summary judgment of no infringement and invalidity. These motions were premature under this district’s local patent rules, which contemplate that a *Markman* hearing will precede motions for summary judgment.”). Other district courts are using the Northern District of California rules or other similar rules. For example, in *Precision Shooting Equipment, Inc. v. High Country Archery*, 1 F. Supp. 2d 1041, 1042 (D. Ariz. 1998), the court “utilized the California rules as a guide for this Order, except to the extent that they allow extrinsic evidence to be used at variance with *Markman*.”

No matter when or how claims are construed, the Federal Circuit has cautioned district courts that they must provide a complete record in order to facilitate a meaningful appellate review. See, e.g., *CVI/Beta Ventures, Inc. v. Tura LP*, 112 F.3d 1446 (Fed. Cir. 1997). Recently, in *AFG Industries, Inc. v. Cardinal IG Co.*, 239 F.3d 1239, 1247 (Fed. Cir. 2001), the Federal Circuit instructed that “[i]t is critical for trial courts to set forth an express construction of the material claim terms in dispute, [] in part because the claim construction becomes the basis of the jury instructions, should the case go to trial. It is also the necessary foundation of meaningful appellate review.” *Id.* (citation omitted).

#### A. Whether to Have a *Markman* “Hearing”

One of the first procedural issues the district court must consider is whether a *Markman* “hearing” is necessary at all. The *Markman* decision does not mandate a hearing and just requires that the judge, not the jury, construe the patent claims. Often district courts decide that a hearing is unnecessary and simply construe the claims based on the written record.

In *LRC Electronics, Inc. v. John Mezzalingua Associates, Inc.*, 974 F. Supp. 171, 180 (N.D.N.Y. 1997), the defendant moved for a *Markman* hearing, arguing that the court “should receive expert testimony regarding the definition of [certain claim] terms,” and that the court should “hold this hearing prior to ruling on [its] motion for summary judgment in order to narrow the issues and possibly prompt settlement.” The court, in response, first noted that “nowhere in the *Markman* decision does the Supreme Court state that courts must hold a pre-trial, or pre-summary judgment, hearing on the issue of claim construction. However, since the *Markman* decision was handed down, a number of district courts faced with claim construction disputes have held some sort of hearing.” *Id.* at 181 (citations omitted). The district court reasoned that a “*Markman* hearing to define [a certain claim] term . . . would only be necessary if the Court needed expert testimony to interpret the term.” *Id.* The court explained that such an instance is when a “term remains ambiguous after considering the intrinsic evidence in the case.” *Id.* Considering the intrinsic evidence, the court stated that “[d]espite its rather common usage, after carefully considering the intrinsic evidence in this case, the Court finds that the exact meaning of the [claim term] is somewhat ambiguous.” *Id.* at 182.

Notwithstanding that ambiguity, which the court intimated would call for a *Markman* hearing, the court reasoned that “[a]fter carefully considering the language used in [the claim], the specification, and Webster’s Dictionary, the Court finds that the meaning of the [claim term] is the one stated in Webster’s Dictionary. Thus, the Court finds that no expert testimony, and hence no

*Markman* hearing, is needed in the instant case.” *Id.* The defendant’s motion for a *Markman* hearing, therefore, was denied.<sup>1</sup>

Similarly, in *Interactive Gift Express, Inc. v. Compuserve Inc.*, 47 U.S.P.Q.2d 1797 (S.D.N.Y. 1998), *rev’d on other grounds*, 231 F.3d 859 (Fed. Cir. 2001), the district court concluded that no *Markman* hearing was necessary. The court there limited discovery to claim construction issues and construed the claims on the basis of a claim construction report prepared by the plaintiff and claim construction briefs. The court stated that a *Markman* hearing was unnecessary because it did not need expert or other testimony to determine the proper construction. *Interactive*, 47 U.S.P.Q.2d at 1797, n.3.<sup>2</sup>

In addition to the situation where the paper record alone is sufficient, where the parties do not dispute claim construction issues, a hearing may not be necessary. In *Electronic Planroom, Inc. v. The McGraw-Hill Cos., Inc.*, 135 F. Supp. 2d 805, 810 (D. Mich. 2001), the court reasoned that “the parties largely agree as to the correct interpretation of the claims at issue, and the Court is satisfied that, for purposes of the present motions, the claims may be construed by resort to the plain meaning and ordinary understanding of their terms. To the extent that any doubts remain, they will be resolved in favor of the non-moving party. Under these circumstances, the Court finds it unnecessary to conduct a separate *Markman* hearing before ruling on the pending motions.”

And where certain claim terms are disputed, but the technology involved in the patent is fairly simple, a *Markman* hearing may not be held because it is not needed. In *Aspex Eyewear v. E’Lite Optik*, 2001 U.S. Dist. LEXIS 2088, \*5 (N.D. Tex. 2001), the court stated that “[i]n cases such as this one, where the technology is accessible to the court and the claims are relatively straightforward, a *Markman* hearing is unnecessary.” *See also Leoutsakos v. Coll’s Hosp. Pharm., Inc.*, 2002 U.S. Dist. LEXIS 1868 (D.N.H. 2002) (where not requested and subject matter not highly technical, patent claims can be construed without a hearing.) *See also Talavico v. Marathon Shoe Co.*, 182 F. Supp. 2d 102 (D. Maine 2002) (denying defendant’s request for a *Markman* hearing where court is able to construe claims without a hearing). In one case, in lieu

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<sup>1</sup> The Federal Circuit, in a non-precedential opinion, without commenting on the propriety of the *Markman* procedure employed by the district court, reversed the district court’s denial of defendant’s JMOL motion, stating that “the accused device was within the prior art.” *LRC Electronics, Inc. v. John Mezzalingua Associates, Inc.*, 1999 U.S. App. LEXIS 10847, \*9 (Fed. Cir. 1999).

<sup>2</sup> The Federal Circuit, again without commenting on the propriety of the *Markman* procedure employed by the district court, vacated and remanded, holding that the district court’s “claim construction impermissibly read limitations from the specification into each of the five disputed claim limitations.” *Interactive Gift*, 231 F.3d at 866.

of a *Markman* hearing, the court relied on a “joint glossary” submitted by the parties. *Elder v. Tanner*, 180 F. Supp. 2d 818 (E.D. Tx. 2001).

Where issues of claim interpretation are raised but those issues do not require the judge to undergo formal claim analysis, a *Markman* hearing may likewise be unnecessary. In *Brosnan v. Rolleblade, Inc.*, 1998 U.S. Dist. LEXIS 6017 (N.D. Cal. 1998), the court considered defendant’s motion for partial summary judgment on the issue of whether plaintiff’s second patent was entitled to an earlier filing date by virtue of being a continuation-in-part application. In so doing, the court looked at the patent claims but did not hold a formal *Markman* hearing because the briefs and arguments were sufficient, even though the court’s claim construction was not conclusive. The court stated that it “did not purport to assess the claims in the manner accomplished through a claim construction hearing.” *Id.* at \*9. Thus, a *Markman* hearing was not warranted.

## **B. Timing of *Markman* Determinations**

In addition to deciding whether a *Markman* hearing is necessary, district courts must also decide the most appropriate time during the litigation process to make *Markman* determinations. District courts are under no obligation to construe the claims at any particular time. *Toter Inc. v. City of Visalia*, 44 U.S.P.Q.2d 1312, 1313 (E.D. Cal. 1997) (“Left open in *Markman* was the central issue now facing this court . . . when claim construction should occur.”). The timing, however, of the *Markman* determination has been recognized as very important. *See Control Res. v. Delta Elecs.*, 133 F. Supp. 2d 121 (D. Mass. 2001) (“Timing is everything.”).

If timing is indeed everything, then some times for a *Markman* determination are better than others, depending on one’s perspective. As one commentator aptly noted, “[t]here is a distinction between the optimal time for a *Markman* hearing from the perspective of the litigants and the optimal time from the perspective of the court. That is, whereas the optimal time for the litigants depends on the particular strengths and weaknesses of the specific issues in the case, the court’s evaluation is instead based on an institutional perspective.” William F. Lee & Anita K. Krug, *Still Adjusting to Markman: A Prescription for the Timing of Claim Construction Hearings*, 13 Harv. J.L. & Tech. 55, n.86 (1999).

In general, in cases in which the parties have been in prior litigation and have a more developed sense of the pertinent issues, and in cases involving simple technology, it may make sense to construe claims early in a litigation. In such instances, courts have construed claims early in the proceeding when discovery is still ongoing or when discovery has been limited to claim construction issues. On the other hand, if the posture of the case or the technology involved is complicated, the trial court may require a more complete record and defer claim construction to later in the proceeding. Thus, other courts have construed the claims much later, after the evidence has been presented but prior to jury deliberation. Yet still others select a time in between and construe the claims after the close of discovery and just prior to trial. These three timings are addressed below.



## 1. *Markman* Determination Before the Close of Discovery

Some courts construe claims early in the proceeding in the hope of narrowing the issues for trial or attendant to a preliminary injunction motion. Indeed, in *Smith Industries Medical System, Inc. v. Vital Signs, Inc.*, 183 F.3d 1347, 1353 (Fed. Cir. 1999), the Federal Circuit acknowledged this desire, stating that “[w]e note that by resolving the meaning to be given to disputed claims terms, and by engaging the parties in such a process, trial courts are often able to narrow disputes and provide more efficient trials.” Generally, early claim construction decisions are provided in those cases where there is reason to believe that the issues can be narrowed by early claim construction, such as is often done in connection with summary judgment briefing or if the parties have been involved in prior litigation. See *Home Diagnostics Inc. v. Lifescan, Inc.*, 120 F. Supp. 2d 864 (N.D. Cal. 2000).

An early *Markman* decision may forestall some or all discovery in a case. Specifically, discovery may be limited initially to claim construction issues or to issues relating to a dispositive motion in conjunction with claim construction. In *Interactive Gift*, 47 U.S.P.Q.2d 1797, discovery was limited to claim construction issues. The claims were construed without a *Markman* hearing on the basis of a claim construction report prepared by the plaintiff and claim construction briefs. The court said that it did not need expert or other testimony to determine the proper construction of the disputed terms.

A stay or limitation on discovery for an early *Markman* determination has been approved by the Federal Circuit. In *Vivid Technologies, Inc. v. American Science & Engineering, Inc.*, 200 F.3d 795, 804 (Fed. Cir. 1999), the Federal Circuit held that the district court had not abused its discretion by staying all discovery concerning the accused product until completion of the claim construction phase of the proceeding. The patentee, American Science, had argued that claim construction should be done no earlier than the end of discovery and urged the court to adopt uniform rules to that effect. The Federal Circuit declined, stating that it saw “no need for such a rule, for the stage at which the claims are construed may vary with issues, their complexity, the potentially dispositive nature of the construction, and other considerations of the particular case.” *Id.* at 803. The Federal Circuit explained that a “district court has broad powers of case management, including the power to limit discovery to relevant subject matter [] and to adjust discovery as appropriate to each phase of litigation.” *Id.* at 803-04. In addition, “[w]hen a particular issue may be dispositive, the court may stay discovery concerning other issues until the critical issue is resolved. Thus the court’s management of discovery at the claim construction stage may serve the salutary goals of speed and economy, and is appropriate in cases in which the disputes may be resolved at this stage without compromise of justice.” *Id.* at 804.

Other courts have concluded that an early *Markman* determination is beneficial because it can aid in narrowing the issues before the court and lead to early disposition of some, if not all, of the issues in the case. The district court in *Elf Atochem North America, Inc. v. Libbey-Owens-Ford Co.*, 894 F. Supp. 844, 857 (D. Del. 1995), noted the efficiency of “early resolution of the claim construction issue.” Similarly, in *Mediacom Corp. v. Rates Technology, Inc.*, 4 F. Supp. 2d 17, 22 (D. Mass. 1998), the district court stated that “[q]uestions regarding the construction of patent claims can now safely be addressed in many circumstances prior to the completion of fact

discovery, and certainly before trial.” In this case, the court determined that an early *Markman* hearing was a salutary mechanism for narrowing the disputed issues and securing prompt disposition of those matters as to which there was no factual disputes. And in *EMI Group North America, Inc. v. Intel Corp.*, 157 F.3d 887, 892 (Fed. Cir. 1998), the Federal Circuit paid “homage” to *Markman* and stated that the instant “case illustrates the resolution of most of a complex infringement case with no more than a two-day *Markman* hearing.”

#### a. Early Claim Construction May Not Be Conclusive

There can be problems with early claim construction, however, because the construction may not be conclusive and may be subject to change on appeal. This fear was addressed even before the Supreme Court issued its *Markman* decision. In *Elf Atochem*, the district court of Delaware stated:

In *Markman*, the Federal Circuit stated, in no uncertain terms, that it would have the final say as to the meaning of words in a claim of a patent, according no deference to decisions by the various United States District Court Judges. That is, in spite of a trial judge’s ruling on the meaning of disputed words in a claim, should a three-judge panel of the Federal Circuit disagree, the entire case could be remanded for retrial on different claims.

*Elf Atochem*, 894 F. Supp. at 857.

In one recent case, a district court reconsidered and modified its earlier claim construction after the case was transferred from the Southern District of New York to a multi-district litigation consolidation in the Central District of California, and then back to New York to a new judge. In *Intellectual Property Development, Inc. v. UA Columbia Cablevision of Westchester, Inc.*, 94 Civ. 6296 (WHP), 2002 U.S. Dist. LEXIS 17 (S.D.N.Y. Jan. 3, 2002), the court granted the defendant’s motion for reconsideration of the earlier *Markman* ruling based on evidence that surfaced later in discovery and also on the Federal Circuit’s clarification of the role of extrinsic evidence in claim construction in *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298 (Fed. Cir. 1999) (en banc). The court relied on new extrinsic evidence to reconstrue a disputed term and granted the defendants’ motion for summary judgment of noninfringement based on the absence of that limitation in the accused device. In so doing, the court characterized *Markman* decisions as “interlocutory” and stated that it “is well established that revisiting *Markman* rulings conducted prior to the completion of discovery is especially appropriate.” *Id.* at \*14-15.

Concerns with the interlocutory nature of claim construction are especially acute with respect to claim constructions rendered in conjunction with preliminary injunction motions. In *Sofamor Danek Group*, 74 F.3d 1216, the Federal Circuit stated that “the trial court has no obligation to interpret [claims] conclusively and finally during a preliminary injunction proceeding. Under *Markman*, claim interpretation is a matter of law. However, *Markman* does not obligate the trial judge to conclusively interpret claims at an early stage in a case. A trial court may exercise its discretion to interpret the claims at a time when the parties have presented a full picture of the claimed invention and prior art.” *Id.* at 1221 (citations omitted). Moreover,

in *International Communication Materials, Inc. v. Ricoh Co.*, 108 F.3d 316 (Fed. Cir. 1997), the Federal Circuit stated that a provisional claim construction in connection with a preliminary injunction motion is appropriate because “discovery was ongoing and the material presented to the district court judge pertaining to claim interpretation was incomplete.” *Id.* at 318-19. In this case the district court had explicitly acknowledged that its claim construction was tentative and only for the purpose of considering a preliminary injunction motion. The Federal Circuit stated that it does not regard it as the appellate function under these circumstances to definitely construe the claim, or to review the district court’s tentative construction without the more complete record that the district deemed necessary to its own final construction decision.

The Federal Circuit has even reversed a claim construction that it had previously affirmed on appeal from the grant of a preliminary injunction motion. In *CVI/Beta Ventures, Inc. v. Tura LP*, 112 F.3d 1446, 1160 n.7 (Fed. Cir. 1997), the Federal Circuit stated that in its earlier opinion, “a different panel of this court, in a non-precedential opinion, upheld the grant of a preliminary injunction against infringement of the ‘112 and ‘955 patents.” In the first case appealed, the panel affirmed an interpretation of the 3% elasticity limitation, which did not restrict the claim to require complete recovery. In its opinion, the first panel stated that it could not conclude in the context of the preliminary injunction proceedings that the district court erred in rejecting Custom Optical’s proffered claim construction. *CVI/Beta Ventures, Inc. v. Tura LP*, 92 F.3d 1203 (Fed. Cir. 1996). In contrast, “In this appeal, we review a different trial court’s final claim construction as part of our review of the judgment on infringement. Therefore, unlike the earlier appeal, this appeal required us to construe the asserted claims based upon the final and complete record in the case.” *Id.* at 1160 n.7. The conflicting constructions adopted by the Federal Circuit in the *CVI* cases have been widely criticized. Yet the deference shown by the court to the district courts’ determinations based on the evidence before them at the time the claims were construed evinces the broad discretion given to district courts in handling *Markman* determinations.

### **b. Claim Construction Issues May Not Be Defined**

In addition to the changeability of claim construction done at an early stage of a litigation, claim terms that require construction may not be identified early on. This can require courts to revisit and revise an earlier *Markman* ruling. In such an instance, a district court later confronted with a claim term that had not been identified as a disputed term when it made its *Markman* ruling, said:

These arguments point to a gaping hole in the Court's *Markman* decision. At the *Markman* hearing, the parties did not focus on the meaning of the word “each” in the phrase “for each message,” and the Court did not discuss that term in its opinion (having no idea that it was disputed) . . . . However, it has become clear to me as I worked my way through the papers submitted on the instant motion that the parties do dispute, quite vigorously, what is meant by the term “each” in the phrase “for each message.”

*TM Patents, L.P. v. IBM*, 121 F. Supp. 2d 349, 377 (S.D.N.Y. 2000). After identifying the disputed term, the court said that had it “been aware at the *Markman* phase that the parties

disputed the meaning of the word “each,” [it] would have given it a literal interpretation . . . . The *Markman* decision is deemed amended accordingly.” *Id.* at 378.

An issue arose in *Leggett & Platt Inc. v. Hickory Springs Mfg. Co.*, 2000 U.S. Dist. LEXIS 13063 (N.D. Ill. 2000), regarding the cut-off period for raising claim construction issues. There, in contrast to *TM Patents*, the court did not allow a party to add a claim construction issue to the *Markman* hearing because the other side would have been prejudiced by the late addition of another term to the list of disputed terms.

We decline to construe any additional terms at this point for a number of reasons. First, L&P asserts, and we agree, that allowing claim construction of additional terms would prejudice L&P, which prepared for the *Markman* hearing based on Hickory's prior representations and our Order focusing claim construction only on the term “support wires.” Hickory had ample opportunity to alert both the Court and L&P of their changed position that they sought construction of additional terms but did not do so.

*Id.* at \*18.

Construing the patent claims before the close of discovery also raises the issue of just how much discovery should or must be had before claim construction is appropriate. Some courts refuse to construe the claims until some discovery has been completed. In *Toter Inc. v. City of Visalia*, 44 U.S.P.Q.2d 1312, 1314 (E.D. Cal. 1997), the court refused defendant's motions for early *Markman* hearing and to prohibit all discovery prior to the hearing, stating that without some discovery the parties did not even know what terms in the patent were in dispute or what prior art might be relevant to claim construction. The district court further stated “some discovery at the very least is necessary prior to *Markman* hearing . . . an early *Markman* hearing would not promote the interest of judicial economy and [this court] refuses to schedule one.” At least one district court has interpreted *Toter* as meaning that “*Markman* hearings to determine proper claim construction are inappropriate prior to completion of discovery.” *Conopco, Inc. v. Warner-Lambert Co.*, 2000 U.S. Dist. LEXIS 1601, \*12 (D.N.J. 2000).

### c. Claim Construction in a Vacuum

Another concern raised regarding early claim construction is the appropriateness and effect of such claim construction when not tied to a motion or some other action in the litigation. As discussed above, early claim construction determinations are often made attendant to a preliminary injunction motion or other dispositive motion. Since these types of motions frame the issues for the court, many believe that they are an appropriate vehicle for obtaining claim construction decisions. One court has suggested, however, that claim construction decisions that do not arise as part of motions practice risk running afoul of the case or controversy limitation on judicial power. *See Mediacom Corp. v. Rates Tech., Inc.*, 4 F. Supp. 2d 17 (D. Mass. 1998). There, the court noted that the characterization of claim construction as an issue of law would in theory allow early claim construction determinations, which from the standpoint of the litigants is generally preferable. The court cautioned, however, that:

such a hearing should take place in the context of conventional motion practice. Only through the use of traditional dispositive motions will the Court remain

moored to familiar procedures and standards of decision, and focus on the application of legal rules to discrete factual circumstances. Otherwise, the Court risks crafting elegant, but ultimately useless, statements of claim construction that fail to address the particular controversy before it. Free-standing Markman hearings are of little use in actual litigation and may, indeed, run afoul of the "case and controversy" limitation on judicial power expressed in the Constitution.

*Mediacom Corp.*, 4 F. Supp. 2d at 21-22.

Another issue that arises out of an early claim construction is the effect of a claim construction ruling made before a motion for summary judgment or trial when the parties settle the litigation. In *Allen-Bradley Co. v. Kollmorgen Corp.*, 199 F.R.D. 316 (E.D. Wis. 2001), the district court, at the request of the parties, held a multi-day *Markman* hearing and issued an extensive *Markman* claim construction ruling. Following issuance of the ruling, the parties decided to settle. That settlement, however, was contingent on vacatur of the district court's claim construction. In ruling on the parties' motion to vacate the claim construction order, the district court was clearly annoyed at being asked to essentially tear-up its ruling. Indeed, the court denied the motion to vacate, stating that:

Of course, this court's order construing the claims of the '437 and '771 patents is . . . a public act of the government . . . . Moreover, this court devoted a substantial amount of time and effort to the claim construction order. The *Markman* hearing itself consumed seven days of court time, and many additional hours were spent doing pre- and post-hearing research and writing the opinion itself. Given the substantial amount of time and effort typically entailed by *Markman* decisions, judicial economy would be enhanced by structuring the incentives so as to encourage pre- *Markman* hearing settlement. The result sought by the parties in the present action would do just the opposite by encouraging litigants to test their proposed claim constructions via a full-blown *Markman* hearing and decision before settling, thereby relegating the court's *Markman* decision to the category of "advisory opinion."

*Allen-Bradley*, 199 F.R.D. at 319-20. The court noted that its claim construction order may be useful to later litigants. *Id.* at 320. Thus, the court refused to vacate its claim construction even though the parties wanted to settle the case and settlement was contingent on vacatur.

Yet another issue is the appropriateness of the court considering issues of infringement when construing the claims. In *Data Point Corp. v. Standard Microsystems Corp.*, 2002 U.S. App. LEXIS 3617 (Fed. Cir. 2002), a non-precedential decision, the Federal Circuit addressed the appellant's argument that the Special Master's "claim construction was improperly commingled with findings on infringement." *Id.* at \*22. While noting that construing claims and comparing the properly construed claims to an accused device are separate, the Federal Circuit stated that "[i]t is entirely appropriate when, in the course of properly and completely construing a claim, the court (or Special Masters as the case may be) either necessarily or coincidentally considers aspects of the accused device" and that "such discussion could not be the basis for a claim of reversible error" in that case because the court held disclaimed issues impacting the infringement analysis. *Id.* at \*23-24.

## 2. *Markman* Determination After the Presentation of Evidence

Other courts do not construe the claims until after all of the evidence has been presented at trial. This is the procedure sometimes utilized by the District of Delaware, a court that deals with a large number of patent cases. This procedure, like *Markman* determinations before the close of discovery, has been approved by the Federal Circuit. In *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1580 (Fed. Cir. 1996), the Federal Circuit noted, without commenting, that despite an early request for a jury instruction on claim construction, the trial court waited until hearing all the evidence presented at trial before rendering a claim construction, but did not reverse the lower court on this point.

In *Ajinomoto Co. v. Archer-Daniels-Midland Co.*, 1998 U.S. Dist. LEXIS 3833 (D. Del. 1998), *aff'd*, 228 F.3d 1338 (Fed. Cir. 2000), the claims were construed after trial. Likewise, in *Johns Hopkins University v. Cellpro*, 931 F. Supp. 303 (D. Del. 1996), the district court stated that “[a]fter the presentation of evidence, the court endeavored to construe the disputed claims of the Civin patents in accordance with *Markman*.” *Johns Hopkins Univ.*, 228 F.3d at 307 (citing *Johns Hopkins University v. Cellpro*, 894 F. Supp. at 826-29 (D. Del. 1995) (setting out the court’s construction of the claims)). The court then instructed the jury on its construction of the claims and on the issues of law raised by the parties, except for the issues of infringement under the doctrine of equivalents and the enforceability of the Civin patents. *Johns Hopkins Univ.*, 894 F. Supp. at 828-40 (setting out the final jury instructions) Interestingly, in *Lifescan, Inc. v. Home Diagnostics, Inc.*, 103 F. Supp. 2d 379 (D. Del. 2000), the district court granted defendant’s motion for JMOL on a claim construction made after the close of evidence.

This approach can lead to various problems because multiple potential claim constructions may be “in play” during trial. If the jury is determining infringement, it is confusing for the jury to hear testimony regarding infringement based on multiple potential constructions. The trial can also become more complex and a more cumbersome process where the jury potentially has to wait to receive the judge’s claim construction after the presentation of evidence. Also, as demonstrated by the court’s grant of a JMOL motion in *Lifescan*, just because the judge construes the claim after all the evidence is presented at trial does not mean that he or she will “get it right.”

In the context of a jury trial, the *Markman* determination can be used to instruct the jury on the court’s interpretation of the claims. The Federal Circuit recently considered whether a litigant had waived its right to challenge an erroneous a jury instruction on claim construction where the party had not challenged the court’s construction in the *Markman* phase. *Ecolab Inc. v. Paraclipse, Inc.*, 285 F.3d 1362 (Fed. Cir. 2002) The Federal Circuit concluded that whether it was futile to object to the jury instruction on claim construction was an issue governed by regional circuit law and noted that in most circuits a failure to object would not waive the ability to appeal. *Id.* at 1370. In *Exolab*, the Federal Circuit concluded that the Eight Circuit might not allow a futility exception, but that even if the objection had been preserved, there was no error in the instruction. *Id.*

### a. Increased Trial Complexity

While construing the patent claims after trial on the merits provides the court with the most complete record upon which to make its ruling, it also arguably increases the complexity,

time, and cost of the trial by requiring parties to present evidence relevant to the other party's proffered construction. This practice also presents difficulties when the court decides to construe the claims in a manner not suggested by any of the litigants.

This situation was encountered in *Exxon Chemical Patents, Inc. v. Lubrizol Corp.*, 64 F.3d 1553 (Fed. Cir. 1996), where the Federal Circuit arrived at a claim construction different from that advocated by either party, but did not remand for a new trial based on that claim construction. In dissent, Judge Nies argued that “[b]y advocating a different interpretation of the claim sua sponte, the majority required Exxon to litigate during trial not only its opponent's position but also the unknowable position of the appellate court. Exxon has been deprived of a jury trial on an unasserted and untried theory. The majority decision comes out of the blue.” *Id.* at 1569.

Following that decision, Exxon went back to the district court and later appealed the district court's denial of its motion for a new trial. On appeal the second time, the Federal Circuit explained that its earlier opinion “referred only to the issue of literal infringement” and that its mandate “was not intended to address the question whether Exxon would be entitled to a new trial under the doctrine of equivalents.” *Exxon Chemical Patents, Inc. v. Lubrizol Corp.*, 137 F.3d 1475, 1478 (Fed. Cir. 1998). The Federal Circuit reasoned that “Exxon could not realistically be expected to request alternative jury instructions asking for an advisory opinion on whether the patent would be infringed under the doctrine of equivalents on Lubrizol's proposed claim construction. Nor could Exxon, as appellee, have been expected to defend the judgment in its favor on the basis of a theory of liability that was never given to the jury.” *Id.* at 1479. Thus, after two appeals to the Federal Circuit, the parties were back in district court dealing with the issue of infringement under the doctrine of equivalents based on the Federal Circuit's claim construction.

#### **b. Cumbersome Process**

In addition to potentially increasing trial complexity, delaying claim construction in a jury trial can result in a cumbersome process when the jury has to wait while the court construes the claims. This issue was addressed by the district court in *Elf Atochem*, where the court stated that:

As evidenced by this case and others pending in this court, in view of *Markman*, parties will now routinely move for the early resolution of the claim construction issue either under Federal Rule of Civil Procedure 56 or 12(b)(6). In a bench trial, the court can delay resolution of the claim construction issue until all of the evidence has been presented. However, in a jury trial, delaying resolution of this issue until trial may raise serious practical problems of how to adequately and fairly rule on these often difficult and vitally important issues at the close of the evidence while a jury waits. Moreover, in jury cases, it may be more efficient to put the case in a posture to have the Federal Circuit review the claim interpretation issue before trying the case to a jury, in order to avoid wasting two weeks or more of a citizen's time because the court erroneously instructed the jury on the meaning of a claim term. However, this approach could add significant time and expense to the ultimate resolution of the litigation.

*Elf Atochem N. Am., Inc. v. Libbey-Owens-Ford Co., Inc.*, 894 F. Supp. 844, 857 (D. Del. 1995).

### 3. *Markman* Determination Before Trial

Many courts construe the patent claims after the close of discovery but before trial, *i.e.*, at the stage of the litigation where motions for summary judgment are often filed. Indeed, it has been recognized that “[s]ince *Markman*, claim construction has most frequently been handled in conjunction with a hearing on a motion for summary judgment.” *Mediacom*, 4 F. Supp. 2d at 22 n.2. A survey by the American Bar Association found that “the *Markman* hearing most commonly occurs just prior to the close of discovery and during the period for filing dispositive motions.” Holmes J. Hawkins III, *Claim Interpretation in a Post-Markman Environment*, 572 *Practicing L. Inst.: Patents, Copyrights, Trademarks, and Literary Prop. Course Handbook Series* 681, 691-92 (1999) (*citing* American Bar Association survey).

Judge Rader of the Federal Circuit, sitting by designation as a trial judge, stated his preference that the claim construction ruling be rendered at that stage and prior to trial. In *Loral Fairchild Corp. v. Victor Co. of Japan, Ltd.*, 911 F. Supp. 76, 79 (E.D.N.Y. 1996) he stated “[t]he meaning of claim terms is the central issue of patent litigation. With most aspects of trial hanging on this determination—a conscientious court will generally endeavor to make this ruling before trial.”

Echoing this rationale, a district court recently observed that “[i]t has now become generally accepted that, barring a case so clear that quick resolution is manifestly in the litigant's interests to minimize transaction costs, the best time to hold the *Markman* hearing is at the summary judgment stage of the litigation—at or near the close of discovery while some time yet remains before trial for the parties to gear up (or settle) in light of the judge's claim construction.” *MacNeill Eng'g Co. v. Trisport, Ltd.*, 126 F. Supp. 2d 51 (D. Mass. 2001) (*citing* William F. Lee & Anita K. Krug, *Still Adjusting to Markman: A Prescription for the Timing of Claim Construction Hearings*, 13 *Harv. J.L. & Tech.* 55, 82-86 (1999)). Following *MacNeill*, that same court stated that it has “consistently taken the procedural approach of conducting the *Markman* hearing at the summary judgment stage of litigation or at the point when discovery has closed and trial is approaching.” *Amgen, Inc. v. Hoeschst Marion Roussel, Inc.*, 126 F. Supp. 2d 69, 80 (D. Mass. 2001). The court specifically noted that the “benefits of so doing range from constitutional concerns arising from conducting such a hearing too soon to efficiency concerns arising from conducting the hearing too late.” *Id.*

Claim constructions issued at this point in a case are often more certain and are less subject to change than those issued during or before discovery. This conclusion was graphically shown in *Cordis Corp. v. Medtronic AVE, Inc.; Boston Scientific Corp.; and Scimed Life Sys, Inc.*, C.A. No. 97-550 and 98-65 (SLR) (D. Del. 2000), where the court issued its fourth claim construction memorandum one month before trial. The fact that Chief Judge Robinson was forced to revisit her claim construction three different times during the pretrial period reinforces the notion that claim construction rulings should be issued closer to trial. *See also* David H. Binney & Toussiant L. Myricks, *Patent Claim Interpretations After Markman – Have the Trial Courts Adapted?*, 38 *IDEA* 155 (1997) (suggesting that *Markman* hearings should be held shortly after the close of discovery, and probably about sixty days prior to trial). This point in the litigation, where discovery has ended but trial has not begun, appears to address the major



concerns related to performing claim construction earlier or later. At this point, the record is (or should be) developed and the complexity and procedural difficulty of performing claim construction at trial can be avoided. Also, issues such as invalidity that arise under a particular claim construction will be dropped before trial because the court's construction render them moot or nonissues. One issue that has been raised with respect to construing the claims at this time, however, is whether claim construction should occur in conjunction with or independent of summary judgment motions. These two alternatives are discussed next.

**a. *Markman* Determination With Summary Judgment**

Many courts perform the *Markman* claim construction in the context of summary judgment practice. Specifically, a motion for summary judgment on, for example, invalidity or noninfringement is a proper vehicle for parties to indicate that certain claim terms should be construed. The district court of Utah explained that “[a]s a practical matter . . . combining the *Markman* hearing and the motion for summary judgment is an efficient and sensible approach to what could otherwise be an unnecessarily lengthy and multi-phased process.” *Utah Med. Prods., Inc. v. Clinical Innovations Assocs., Inc.*, 79 F. Supp. 2d 1290, 1299 (D. Utah 1999).

The “Rule 56 summary judgment motion” has been described as “a perfectly appropriate vehicle in which to conduct a *Markman* hearing.” *Mediacom Corp. v. Rates Tech., Inc.*, 4 F. Supp. 2d 14, 24 (D. Mass. 1998). Another court noted that “[m]any courts address claim construction and summary judgment in a single opinion, since the way in which a patent claim is construed often affects the determination of whether it has been infringed.” *Genentech, Inc. v. Boehringer Mannheim GmbH*, 989 F. Supp. 359, 364 (D. Mass. 1997). Similarly, the district court in Massachusetts stated recently that “[t]he nature of this dispute suggests that conducting *Markman* hearings out of the context of specific summary judgment allegations is not at all advisable.” *Trustees of Columbia University v. Roche Diagnostics GmbH*, 180 F. Supp. 2d 191 (D. Mass. 2001). Moreover, by construing the claims in the context of a motion for summary judgment, only those claim terms that need to be construed for purposes of the motion need be addressed.

**b. *Markman* Determination Independent of Summary Judgment**

On the other hand, at least one court (Massachusetts) has stated that *Markman* hearings should be held independent of summary judgment determinations, and another (Delaware) has construed claims from time to time independently of summary judgment. See *Scriptgen Pharm., Inc. v. 3-Dimensional Pharm., Inc.*, 79 F. Supp. 2d 409 (D. Del. 1999); *Novo Nordisk v. Eli Lilly & Co.*, No. Civ. A. 98-643 MMS, 1999 WL 1094213 (D. Del. 1999). In *Amgen, Inc. v. Hoeschst Marion Roussel, Inc.*, 126 F. Supp. 2d 69 (D. Mass. 2001), the court explained that the practice of the court is that “a *Markman* hearing [i]s conducted prior to and entirely independently of the summary judgment hearing.” *Id.* at 80-81; see also *MacNeill Eng'g*, 126 F. Supp. 2d at 54 & n.1. The court stated that the better practice is to have *Markman* hearings independent from and prior to any summary judgment determination on infringement—even though it is not required by *Markman*—to insure that the court's duty to construe the claims as a legal matter does not override the jury's duty to determine the fact of infringement or any factual determinations associated with invalidity. The court explained that “[c]onstruing the claims

without regard to the alleged infringement issues avoids conflating ‘the legal explication required by *Markman*’ with the fact-finding role reserved for the jury.” *Amgen*, 126 F. Supp. 2d at 80. At the same time, however, the court noted that “a motion for summary judgment is, of course, an excellent vehicle to frame the essential questions of patent claim construction.” *Id.* Thus, though separate, the court will hear “oral argument on the [summary judgment] motion immediately following a *Markman* hearing.” *Harpak, Inc. v. Convenience Food Sys.*, 112 F. Supp. 2d 82, 83 (D. Mass. 2000). See also *Old Town Canoe Co. v. Glenwa*, 2001 U.S. Dist. 19680 (D. Oregon 2001).

#### **a. *Markman* Before Summary Judgment**

Though courts have stated that *Markman* determinations will be made during the summary judgment phase, they have also been clear that the *Markman* determination should be made before a summary judgment motion will be accepted. One court recently stated that it could not rule on a motion for summary judgment for non-infringement without “knowing the precise meaning” of various claim terms. *Centricut, LLC v. Esab Group, Inc.*, 2002 U.S. Dist. LEXIS 4202, 10 (D.N.H. 2002) The court thus denied the motion and directed the parties to either “file a stipulation as to claim construction or notify the court whether claim construction issues could be resolved on the briefs or would require a *Markman* hearing.” *Id.* at 10-11. See also *Williams v. General Surgical Innovations, Inc.*, 178 F. Supp. 2d 698, 712 (E.D. Tx. 2002) (describing anticipation as “post-*Markman*” consideration).

Similarly, another court has held *Markman* hearings during the summary judgment phase of the proceeding (defined as after the close of discovery and before trial), but before the submission of summary judgment motions. See *Polyclad Laminates v. Macdermid, Inc.*, 2001 U.S. Dist. LEXIS 1733, \*2 (D.N.H. 2001) (“The court recently granted defendant’s motion for a *Markman* hearing . . . Once the patent in suit is construed, the parties will be afforded ample time to submit dispositive motions based upon that construction”). Similarly, in *McNulty v. Taser Int’l Inc.*, 61 U.S. P.Q. 2d 1937 (C.D. Cal 2002), the court denied a motion for summary judgment of non-infringement as moot because a *Markman* hearing had not yet been held.

### **C. What May Be Presented at a *Markman* Hearing**

In addition to deciding whether and when to have a *Markman* hearing, courts must decide what information to consider at such a hearing. This issue is informed by the recognition that “claim construction requires a degree of imagination from the Court.” *Pall Corp. v. Cuno Inc.*, 2001 U.S. Dist. LEXIS 16778, \* 10 (S.D.N.Y. 2002) (citation omitted). The intrinsic evidence, namely, the claims, written description, and prosecution history can and should be presented and considered. The more difficult question has been what extrinsic evidence may be presented and

considered. Extrinsic evidence is defined as “all evidence external to the patent and prosecution history, including inventor testimony, dictionaries, and learned treatises.” *Markman*, 52 F.3d at 980.

The Supreme Court implicitly assumed in its *Markman* opinion that expert testimony would be permitted because claim construction inquiries involve credibility judgments about expert witnesses that testify in patent cases. Likewise, the en banc Federal Circuit stated that a “court may, in its discretion, receive extrinsic evidence in order ‘to aid the court in coming to a correct conclusion’ as to the ‘true meaning of the language employed’ in the patent.” *Markman*, 52 F.3d at 980 (*quoting Seymour v. Osbourne*, 78 U.S. (11 Wall.) 516, 546 (1871)). The court realized that a judge is not usually conversant in the technical area involved and is not the hypothetical skilled person in the art for whom the specification is geared. Thus, extrinsic evidence may be necessary to inform the court as to the usual meaning of claim terms in the technical field, or to demonstrate the state of the art at the time of invention. The court stated, however, that extrinsic evidence could never be used to vary or contradict the clear meaning of the claim terms but that a court could look to extrinsic evidence to assist it in its construction. *Id.* at 981. Since that admonition, the Federal Circuit and district courts have wrestled with how to deal with the use of extrinsic evidence in the claim construction context.

### 1. *Vitronics* Limits Use of Extrinsic Evidence

The question of when and how extrinsic evidence may be used in claim construction was reviewed by the Federal Circuit in *Vitronics Corp. v. Conceptor, Inc.*, 90 F.3d 1576 (Fed. Cir. 1996), where the court took a seemingly harsh stance against the use of any extrinsic evidence in construing claim terms. In *Vitronics*, the court stated that “[i]n those cases where the public record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper.” *Id.* at 1583. The court further explained that only where there is some genuine ambiguity after the claims have been construed “should the trial court have resorted to extrinsic evidence, such as expert testimony, in order to construe” the claims. *Id.* at 1584. Because of the public notice function of a patent specification, claims should be construed using the public record. *Id.* at 1583.

Since *Vitronics*, many Federal Circuit decisions have taken a similarly strict position against the use of extrinsic evidence. *See, e.g., Interactive Gift*, 231 F.3d at 867 (“Given the lack of ambiguity in the intrinsic evidence, it would be improper to address any of the parties’ arguments relating to extrinsic evidence . . . .”); *Suntiger, Inc. v. Scientific Research Funding Group*, 189 F.3d 1327, 1335-36 (Fed. Cir. 2000) (stating that because the patent left no real doubt regarding the proper claim construction, there is no need for and it would be improper for the court to rely on extrinsic evidence); *Digital Biometrics, Inc. v. Identix, Inc.*, 149 F.3d 1335, 1344 (Fed. Cir. 1998) (stating that if the claim is clear in view of the intrinsic evidence, resort to extrinsic evidence should not be necessary). Many courts and litigants have considered *Vitronics* as an explicit complete ban on extrinsic evidence during a *Markman* hearing unless there is some ambiguity as to the meaning of the claims in the intrinsic evidence.

## 2. Explaining

### ***Vitronics*: The Federal Circuit Allows Consideration of Extrinsic Evidence but Limits Its Use**

Despite the presence of numerous cases following *Vitronics* approach to the use of extrinsic evidence, the Federal Circuit has sometimes softened the stance seemingly taken by the *Vitronics* court. The Federal Circuit has indicated that trial courts may consider extrinsic evidence, such as expert testimony, even when the intrinsic evidence is sufficient to construe the claims, where such extrinsic evidence provides education and background information or is consistent with the intrinsic evidence of record. Essentially extrinsic evidence may always be used by the court to determine the state of the relevant art, what one of ordinary skill would interpret the disputed terms to mean, and to educate the court on the technical area that the patent at issue covers.

For instance, in *Key Pharmaceuticals v. Hercon Laboratories Corp.*, 1 F.3d 709, 716-17 (Fed. Cir. 1998), the Federal Circuit clarified its position on extrinsic evidence, distinguishing between *using* extrinsic evidence and *hearing* extrinsic evidence:

This court has made strong cautionary statements on the proper *use* of extrinsic evidence, *see Vitronics Crop. v. Conception, Inc.*, 90 F.3d 1576, 1583, 39 U.S.P.Q.2d 1573, 1577 (Fed. Cir. 1996), which might be misread by some members of the bar as restricting a trial court's ability to *hear* such evidence. We intend no such thing. To the contrary, trial courts generally can hear expert testimony for background and education on the technology implicated by the presented claim construction issues, and trial courts have broad discretion in this regard.

*Id.* at 716. There, the court concluded that the intrinsic evidence was insufficient to establish the numerical range of amounts represented by the term "pharmaceutically effective amount," and found that the *use* of expert testimony and FDA standards to construe the term was entirely appropriate. *Id.* at 717 (emphasis added).

The full court, in *Cybor Corp. v. FAS Technologies, Inc.*, 138 F.3d 1448, 1454 n.3 (Fed. Cir. 1998) (en banc), explained that extrinsic evidence may properly be used "for the court's understanding of the patent." The court explained that it could provide "aid to the court in coming to a correct conclusion as to the true meaning of the language employed in the patent." *Id.*

Likewise, the court in *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308 (Fed. Cir. 1999), distinguished between *hearing* extrinsic evidence and *relying* on extrinsic evidence in coming to the proper construction. The *Pitney Bowes* court further explained that extrinsic evidence may be considered and used where its is *consistent* with the intrinsic evidence to ensure that the claim construction is correct. The court stated that “under *Vitronics*, it is entirely appropriate, perhaps even preferable, for a court to consult trustworthy extrinsic evidence to ensure that the claim construction it is tending to from the patent file is not inconsistent with clearly expressed, plainly apposite, and widely held understandings in the pertinent technical field.” *Id.* at 1309. The court said that this was true even where intrinsic evidence is unambiguous, retrenching from the language of *Vitronics*. “Although the patent file may often be sufficient to permit the judge to interpret the technical aspects of the patent properly, consultation of extrinsic evidence is particularly appropriate to ensure that his or her understanding of the technical aspects of the patent is not entirely at variance with the understanding of one skilled in the art.” *Id.*

More recently, the Federal Circuit again emphasized the educational value of extrinsic evidence. For instance, in *AFG Industries, Inc. v. Cardinal IG Co.*, 239 F.3d 1239 (Fed. Cir. 2001), the court stated that “we are reminded of the potential value of scientific testimony during claim construction hearings by the early statement of the Supreme Court that where the claims or specification ‘contain technical terms or terms of art the court may hear the testimony of scientific witnesses to aid the court in coming to a correct conclusion.’” *Id.* at 1249 (*quoting Seymour v. Osborne*, 78 U.S. (11 Wall.) 516, 546 (1870)). The court stated that a district court errs when it ignores scientific testimony regarding how a claim term is understood in the art where that testimony corroborates the meaning adduced from the specification. *Id.*; *see also Mantech Envtl. Corp. v. Hudson Envtl. Servs., Inc.*, 152 F.3d 1368, 1373 (Fed. Cir. 1998) (stating that it was “legally correct” for the district court to admit expert testimony in a *Markman* hearing relating to how one of ordinary skill in the art would interpret a claim term but then using the extrinsic evidence as background and basing its construction solely on intrinsic evidence).

Thus, it appears that under the law as it exists today, a complete ban on extrinsic evidence is not required even when disputed claim terms are not ambiguous after review of intrinsic evidence. Rather, the educational value of extrinsic evidence favors allowing consideration of such evidence even though it may not be used to construe the claims. In addition to expert testimony, other types of extrinsic evidence, namely, inventor testimony and dictionaries, are worthy of note in the claim construction context. In fact, dictionaries and treatises have become popular tools for district courts and even the Federal Circuit’s construction inquiries.

#### **a. Inventor Testimony**

Extrinsic evidence includes inventor testimony, because this testimony is extrinsic to the file wrapper. *Zodiac Pool Care, Inc. v. Hoffinger Indus.*, 206 F.3d 1408, 1414 (Fed. Cir. 2000). Although the inventor’s subjective intent is not an issue, the Federal Circuit has noted that inventor testimony can be useful during claim construction “in determining the meaning or scope of technical terms in the claims.” *Vitronics*, 90 F.3d at 1584 n.6 (*quoting Pall Corp. v. Micron*

*Separations, Inc.*, 66 F.3d 1211, 1216 (Fed. Cir. 1995)). By the same token, however, inventor testimony is also eyed suspiciously—more so than any other type of extrinsic evidence—because of the potential for self-interested testimony by the inventor. *Biodex Corp. v. Loredan Biomed., Inc.*, 946 F.2d 850, 860 (Fed. Cir. 1991). As an example, in *Markman*, after determining that claim construction is a legal issue, the court declined to give deference to the testimony of *Markman* and his attorney on the proper construction of the claim. *Markman*, 52 F.3d at 983.

As with the procedure employed for *Markman* determinations, district courts have considerable discretion in deciding whether or not to consider inventor testimony. In *In re Thomas & Betts Corp.*, Misc. Docket No. 593,1999 U.S. App. LEXIS 28058, \*2-3 (Fed. Cir. 1999), the Federal Circuit denied a petition for writ of mandamus where the district court had precluded questioning of inventors by deposition about the specification and claims of the patent in suit. The Federal Circuit denied this petition though the defendant had argued that extrinsic evidence of inventor testimony, in certain circumstances, is appropriate for consideration in the claim construction context. Generally, inventory testimony is not allowed when it is inconsistent with the intrinsic evidence, on the other hand, when the inventor testimony is inconsistent with the patentee's claim construction position, it is likely considered.

Where inventor testimony is inconsistent with the intrinsic evidence numerous courts have stated that inventor testimony as to what the claims mean should be given little weight. *See, e.g., Markman*, 52 F.3d at 983; *Dow Chem. Co. v. United States*, 226 F.3d 1334, 1341-42 (Fed. Cir. 2000); *Speedplay, Inc. v. Bebop, Inc.*, 211 F.3d 1245, 1256 (Fed. Cir. 2000); *Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372, 1377-81 (Fed. Cir. 2000); *Vehicular Techs. Corp. v. Titan Wheel Int'l, Inc.*, 141 F.3d 1084, 1092 (Fed. Cir. 1998); *Bell & Howell Document Mgmt. Prods. Co. v. Altek Sys.*, 132 F.3d 701, 706 (Fed. Cir. 1997); *Roton Barrier, Inc. v. Stanley Works*, 79 F.3d 1112, 1126 (Fed. Cir. 1996); *Senmed, Inc. v. Richard-Allan Med. Indus., Inc.*, 888 F.2d 815, 819 n.8 (Fed. Cir. 1989); *Lear Siegler Inc. v. Aeroquip*, 733 F.2d 881, 889 (Fed. Cir. 1984).

Recently, the district court in the Eastern District of Virginia stated that “an inventor's testimony on claim construction amounts to no more than legal opinion which the court has complete discretion to exclude or ignore.” *Knorr-Bremse Systeme Fuer Nutzfahrzeuge GmbH v. Dana Corp.*, 133 F. Supp. 2d 833, 839 (E.D. Va. 2001). There, the court would not consider inventor testimony, or any extrinsic testimony at all, stating that “resort to extrinsic evidence is unnecessary, and indeed improper, in this instance for any purpose other than to aid the Court in gaining a general understanding of the pertinent technology,” citing *Hockerson-Halberstadt, Inc. v. Avia Group International, Inc.*, 222 F.3d 951, 955 (Fed. Cir. 2000) as “recognizing that ‘if the meaning of a claim is unambiguous from the intrinsic evidence, then a court may not rely on extrinsic evidence for purposes of claim construction.’” *Knorr-Bremse*, 133 F. Supp. 2d at 839.

As previously noted, where inventor testimony is consistent with the intrinsic evidence, it may be admissible under the court's discretion. *See Voice Techs. Group, Inc. v. VMC Sys., Inc.*, 164 F.3d 605, 615 (Fed. Cir. 1999) (criticizing the district court for excluding the affidavit of a joint inventor who asserted that the accused infringer's expert had given a claim term a definition that contradicted the teachings of the specification). In *Voice Technologies*, the court stated that the district court had gone too far in its application of *Markman* to exclude all inventor testimony relating to claim construction. The court explained that “*Markman* did not hold that the inventor can not explain the technology and what was invented and claimed; the Federal Circuit held only

that the inventor can not by later testimony change the invention and the claims from their meaning at the time the patent was drafted and granted.” *Id.*; see also *Hoechst Celanese Corp. v. BP Chems. Ltd.*, 78 F.3d 1575, 1580 (Fed. Cir. 1996) (recognizing that inventor testimony was not entitled to any deference but nevertheless considering it because it enlarged the court’s “understanding of the technology and the usage of the terms”); *Glaxo Wellcome v. Genentech, Inc.*, 2001 U.S. Dist. LEXIS 4132 (D. Del. 2001) (considering inventor testimony as to the meaning of claim terms and construing them according to their “plain meaning”).

In addition, inventor testimony may be admissible if it is adverse to the patent owner’s case, especially its proposed claim construction. The use of inventor testimony is sensible in this circumstance because presumably the inventor’s testimony would be aligned with the patent owner’s case. Thus, an inventor’s testimony contrary to the patent owner’s case would be important for determining the viability of its proposed claim construction and should be considered. See, e.g., *Gentex Corp. v. Donnelly Corp.*, 69 F.3d 527, 530 (Fed. Cir. 1995); *Johnsson v. Stanley Works*, 903 F.2d 812, 821 (Fed. Cir. 1990).

#### **b. Dictionaries and Technical Treatises**

Dictionaries and technical treatises are another form of extrinsic evidence. But in contrast to inventor testimony, dictionaries have been received more favorably by courts because there is not the inherent self-interest issue with this type of evidentiary source. The Federal Circuit, in *Vitronics*, stated that, although dictionaries are *technically* extrinsic evidence, the court is free to consult them at any time to help determine the meaning of claim terms, “so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents.” *Vitronics*, 90 F.3d at 1584 n.6. Dictionaries “are accessible to the public in advance of litigation [and are therefore] to be preferred over opinion testimony, whether by an attorney or artisan in the field of technology to which the patent is directed.” *Vitronics*, 90 F.3d at 1585. The Federal Circuit has repeated this distinction between dictionaries and other types of extrinsic evidence, stating that it “has admonished that claims should preferably be interpreted without recourse to extrinsic evidence such as expert testimony, other than perhaps dictionaries or reference books, and that expert testimony should be received only for the purpose of educating the judge.” *EMI Group N. Am. v. Intel Corp.*, 157 F.3d 887, 892 (Fed. Cir. 1998).

District courts have picked up on this preference for dictionary definitions over other extrinsic evidence such as expert testimony. One court stated that “rather than turning immediately to expert testimony, which the Federal Circuit has stated should be treated with ‘utmost caution for it is no better than opinion testimony on the meaning of statutory terms,’ the Court turns first to a dictionary, a source the Federal Circuit considers a more objective and reliable guide than expert testimony.” *LRC Elec. v. John Mezzalingua Assocs., Inc.*, 974 F. Supp. 171, 182 (N.D.N.Y. 1997) (citing *Vitronics*, 90 F.3d at 1576).

#### **c. Ordinary and Accustomed Meaning/Plain Meaning**

In addition to setting a hierarchy of evidence that may be used to construe claims, the Federal Circuit has articulated additional standards for the point of view used for construction

purposes. Claims are given their ordinary and accustomed meaning in the relevant technological area, and are construed from the viewpoint of a person of ordinary skill in the field of invention at the time of invention. *Multiform Dessiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed. Cir. 1998). But there are two situations in which a court can adopt a definition different from the ordinary and accustomed meaning in the art. First, the patentee is free to become his own lexicographer by clearly setting forth in the specification an alternative definition. *Renishaw PLC v. Marposs Societa' Per Azioni*, 158 F.3d 1243, 1249 (Fed. Cir. 1998). The second situation is one in which the claim term as it is used by the patentee deprives the claim of clarity that the court is unable to ascertain the scope or meaning of the claim from the language used. *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 989 (Fed. Cir. 1999). It is in these two types of situations that the court can and should consider intrinsic evidence beyond the claim language or even the specification, and if necessary, extrinsic evidence.

To determine the ordinary and accustomed meaning to one skilled in the art, it may be necessary to consider extrinsic evidence. Extrinsic evidence informs a judge as to what the meaning of the term is in the relevant scientific community. Yet this need must be contrasted with the public policy argument that the intrinsic evidence should notify the public of the scope of the invention, without requiring use of additional resources. The weakness of this public policy argument against utilizing extrinsic evidence is that a judge is *not* one of ordinary skill in the art, and may, therefore, need more than the file wrapper to bring his background knowledge to that level.

How does the court determine the ordinary and accustomed meaning of claim terms? Some Federal Circuit cases demonstrate that the court has determined the plain meaning of claim terms by deriving this meaning from various sources including extrinsic evidence. *See, e.g., Schering Corp.*, 222 F.3d at 1353; *Tate Access Floors, Inc. v. Maxcess Techs., Inc.*, 222 F.3d 958, 965 (Fed. Cir. 2000) (using Webster's Dictionary to derive ordinary meaning); *Electra Instrument S.A. v. O.U.R. Scientific Int'l, Inc.*, 214 F.3d 1302 (Fed. Cir. 2000) (same); *Key Pharms. v. Hercon Labs. Corp.*, 161 F.3d 709, 716 (Fed. Cir. 1998) (stating that district court could consider and rely upon expert testimony relating to claim construction issue when the intrinsic evidence does not enlighten the courts understanding of the terms); *Maxwell v. J. Baker, Inc.*, 86 F.3d 1098, 1105 (Fed. Cir. 1996) (using technical treatise to determine ordinary meaning); *cf. Process Control Corp. v. HdReclaim Corp.*, 190 F.3d 1350, 1356 (Fed. Cir. 1999) (deriving meaning solely from claim term). Sometimes the plain meaning of a term is articulated without describing its source. *See Robotic Vision Sys., Inc. v. View Eng'g, Inc.*, 189 F.3d 1370, 1375 (Fed. Cir. 1999).

#### **D. Using Court-Appointed Experts**

Some courts have taken the consideration of extrinsic evidence in connection with claim construction even further by appointing experts under Fed. R. Evid. 706 or technical advisors not under Rule 706. Courts appoint such experts to obtain background information and education on the technology from an independent source. *See, e.g., Genentech, Inc. v. Boehringer Mannheim GmbH*, 989 F. Supp. 359 (D. Mass. 1997) (considering the testimony of a court appointed expert on claim construction); *Rohm & Haas Co. v. Lonza*, 1998 WL 97855, \*9 n.1 (E.D. Pa. Feb. 11, 1998) (using a court appointed expert to assist the court in understanding the scientific and technical matters associated with claim construction); *Amgen Inc. v. Hoechst Marion Roussel*,



*Inc.*, 126 F. Supp. 2d 69, 78 & n.3 (D. Mass. 2001) (discussing the court's use of an independent technical expert to provide background information as part of deciding claim construction issues).

One court extolled the virtues of using a court appointed expert in connection with claim construction, stating that it “learned more technical data in a 45-minute discussion with [the court-appointed expert] than [it] would have learned in two days of formal testimony” and that the “efficacy of the process can not be overstated.” *MediaCom Corp. v. Rates Tech., Inc.*, 34 F. Supp. 2d 76, 78 n.1 (D. Mass. 1998). The court explained that it was not denigrating cross-examination but said that “fair cross presumes an understanding of the data examined. In recondite fields of scientific endeavor, however, my understanding is deficient and I need help—much like the help one gets from a law clerk in a recondite field of law.” *Id.* The court was careful to note, however, that it drew its own independent conclusions apart from those presented in that testimony. *Id.*

In contrast, at the May 2001 Federal Circuit Bar Conference, with a single exception, a panel of district court judges questioned the value of court-appointed technical experts under Rule 706. The panel stated that they were often not helpful, particularly where a dialog could not be had between the judge and the Rule 706 expert. One judge opined that counsel must do a good job teaching their own experts how to teach the judge, because the judge usually found that the explanations of the parties' experts much more understandable than those of the court-appointed expert.

Recently the Federal Circuit considered the propriety of the appointment of a technical advisor outside of the context of Rule 706. *Tech Search L.L.C. v. Intel Corp.*, 285 F. 3d 1360 (Fed. Cir. 2002). The Federal Circuit noted that a “technical advisor is helpful in assisting the court in understanding the scientific and technical evidence, it must consider” so that, among other things, the court can interpret the patent claims. *Id.* at 1377. Notwithstanding that, the Federal Circuit cautioned that the use of a technical advisor is not “invariably desirable” and that safeguards are required to avoid the risk of the court's decision making function being delegated to the technical advisor. *Id.* at 1379. In a concurrence, Judge Dyk stated that the “risks with respect to the use of technical advisors make it more important that district judges confine technical advisors to the proper sphere - - - to provide advice without compromising the decision-making obligation of the district judge.” *Id.* at 1381.

### **E. Collateral Estoppel and Prior Claim Constructions**

District courts have recently grappled with the question of whether an earlier claim construction has preclusive effect in a later litigation. In one recent case, the District Court for the Western District of Virginia considered the question of issue preclusion where another district court had previously conducted a *Markman* hearing and issued a claim construction order, but the parties settled before going to trial. In *Kollmorgen Corp. v. Yaskawa Electronic Corp.*, 147 F. Supp. 2d 464 (W.D. Va. 2001), the patentee opposed the alleged infringer's motion to adopt a *Markman* claim construction order in a related action in another district court. A third party not involved in the second suit had brought a declaratory judgment of

noninfringement in Wisconsin, and the court construed the claims at issue relating to two patents owned by Kollmorgen. The parties to the Wisconsin case subsequently entered into settlement negotiations, conditioning settlement on the district court's vacatur of the *Markman* order, which the court denied. The defendant in the Virginia case had filed a motion to intervene in the Wisconsin case, but that motion was denied in light of the court's denial of the motion for vacatur of the *Markman* ruling.

The Virginia court found that though three of the four prongs of the issue preclusion analysis were met by the Wisconsin case, that the Wisconsin court's construction of the claims was not essential to a final judgement, i.e., a *Markman* order is not material to a consensual settlement between the parties and thus, the final judgement prong was not met. *Id.* at 466-67. In coming to this conclusion, the court noted that in *TM Patents, LP v. IBM Corp.*, 72 F. Supp. 2d 370 (S.D.N.Y. 1999), the court had found issue preclusion under "a strikingly similar" factual situation, but stated that "[A]lthough *Markman* did empower the judge, rather than the jury, to construe the patent scope and claim at issue, it did not single-handedly redefine 'finality' for collateral estoppel purposes." *Kollmorgen*, 147 F. Supp. 2d at 467. See *Abbot Labs v. Dey, LP*, 110 F. Supp. 2d 667 (N.D. Ill. 2000) (issue preclusion barred plaintiffs from relitigating claim construction issues decided in an earlier infringement action); *Edberg v. CPI*, 2001 WL 897151 (D. Conn. June 4, 2001) (noting that "even if plaintiffs were not estopped from challenging the prior construction" the court concluded that the previous claim construction ruling was correct). Also, the court noted that applying collateral estoppel to an unappealable order would have a chilling effect on settlements. *Id.* at 468 (citing *Graco Children's Prods., Inc. v. Regalo Int'l, LLC*, 77 F. Supp. 2d 660, 664 (E.D. Pa. 1999) (noting that this would decrease the incentives for settlements and increase immediate appeals to correct what the party perceived as unfavorable claim construction)).

In *Texas Instruments, Inc. v. Linear Technologies Corp.* 182 F. Supp. 2d (E.D. Tx 2002), the court considered whether the defendant was subject to issue preclusion based on a claim construction issued by the same court in an earlier case against a different defendant. The court said, no, reasoning that even in cases where collateral estoppel had "been applied to give binding effect to claim interpretations from a previous action, collateral estoppel was invoked by the defendant against the patentee." The court concluded that where the "defendants have had no chance to litigate their claims, the application of stare decisis in the form of an adoption of claims construed without Defendant's participation could cause an injustice of precisely the sort that due process seeks to avoid." *Id.* at 590. Thus, the defendant's request for a *Markman* hearing was granted.

The Federal Circuit has not yet considered this issue. In *Kollmorgen*, the district court certified the question of issue preclusion to the Federal Circuit because it determined that other jurisdictions had reached different conclusions on the same facts. The Federal Circuit granted permission to appeal. *Kollmorgen Corp. v. Yaskawa Electronic Corp.*, Misc. No. 685 (Fed. Cir. Oct. 19, 2001) (Order granting petition to appeal). However, the parties settled in March 2002, and the court dismissed the appeal, *Kollmorgen Corp. v. Yaskawa Electronic Corp.*, No. 02-1057, 33 Fed. Appx. 496 (Fed. Cir. Mar. 18, 2002) (unpublished), so the Federal Circuit was unable to reach the question.

## F. Is *Festo* a *Markman* Issue?

In *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558 (Fed. Cir. 2000) (en banc), the Federal Circuit held that narrowing amendments give rise to prosecution history estoppel where the applicant cannot establish from the record that the amendment was not made for the purpose of patentability. Where prosecution history estoppel is found, the court added, the patentee is precluded from asserting infringement under the doctrine of equivalents as to the amended element or limitation, *i.e.*, there is a complete bar to coverage beyond the literal scope of the amended limitation. The Supreme Court agreed with the Federal Circuit that a narrowing amendment made to satisfy any requirement of the Patent Act may give rise to an estoppel. 535 U.S. \_\_\_\_ (2002). But the Supreme Court disagreed with the Federal Circuit's decision to adopt a complete bar.

What impact does *Festo* have on *Markman* hearings? In a recent case, *Intellectual Property Development, Inc. v. UA Columbia Cablevision of Westchester, Inc.*, 2002 U.S. Dist. LEXIS 17 (S.D.N.Y. Jan. 3, 2002), the defendants, arguing for grant of a motion for rehearing, stated that the en banc Federal Circuit opinion in *Festo* supported their motion for reconsideration because it altered the claim construction inquiry. The court stated that "While *Festo Corp.* dramatically alters the contours of prosecution history estoppel, it does not change the law of claim construction. . . . '[T]he limit on the range of equivalents that may be accorded a claim due to prosecution history estoppel is simply irrelevant to the interpretation of those claims.'" *Id.* at \*18. *Festo*, therefore, does not appear to directly impact *Markman* determinations beyond demonstrating that the claim construction step of an infringement analysis is 'the heart of the matter.'

## III. Appeal of *Markman* Issues

### A. Availability of Interlocutory Appeal

District courts early on expressed an expectation that interlocutory appeal would be available to litigants to test a district court's *Markman* claim construction. *Elf Atochem*, 894 F. Supp. at 857 (noting that litigants would probably seek immediate interlocutory appeal to the Federal Circuit once the district court ruled on claim construction issues). The Federal Circuit has, however, refused interlocutory appeals on claim construction issues not coupled to a dispositive ruling in the case. *See, e.g., Microchip Tech., Inc. v. Scenix Semiconductor, Inc.*, No. 558, 559, 1998 WL 743923 (Fed. Cir. Sept. 8, 1998) (non-precedential opinion); *ArthroCare Corp. v. Ethicon, Inc.*, No. 555, 1998 WL 568690 (Fed. Cir. Aug. 20, 1998) (non-precedential opinion); *Flores v. Union Pac. R.R.*, No. Misc. 474, 1996 WL 673316 (Fed. Cir. Nov. 14, 1996) (non-precedential opinion). In *Cybor Corp. v. FAS Technologies, Inc.*, 138 F.3d 1448 (Fed. Cir. 1998) (en banc), in a separate opinion Judge Newman noted that district courts have tried to certify claim construction issues, and that "the Federal Circuit has thus far declined all such certified questions." *Id.* at 1479 (Newman, J., additional views). Thus, unless a dispositive ruling such as a preliminary injunction or a ruling on summary judgment, is made, the Federal Circuit will not review a claim construction.

Because many cases hinge on the court's interpretation of the claims and interlocutory review of claim construction determinations is unavailable, parties may concede infringement or noninfringement based on the adopted construction to immediately appeal a claim construction ruling. This has led to some interesting results. In *Schering Corp. v. Amgen, Inc.*, 35 F. Supp. 2d 375, 377 n.2 (D. Del. 1999) the court noted that the Federal Circuit disfavors interlocutory appeals from *Markman* decisions, but will decide appeals from judgments entered based on a party's concession that it cannot succeed under the court's claim interpretation. The court noted that by "denying interlocutory appeals, the Federal Circuit will only hear appeals from adverse claim construction decisions where the party concludes its case is irreparably harmed by the lower court's claim interpretation." *Id.* In *Schering* the patentee sought summary judgment of noninfringement after an adverse claim construction ruling and appealed the claim construction to the Federal Circuit. The Federal Circuit affirmed the district court's claim construction and the grant of summary judgment of noninfringement. *Schering Corp. v. Amgen, Inc.*, 222 F.3d 1347, 1349 (Fed. Cir. 2000). In contrast, in *Durel Corp. v. Osram Sylvania, Inc.*, 256 F.3d 1298 (Fed. Cir. 2001), the district court construed the claims in a manner that the patentee found favorable to its infringement case, and the accused infringer stipulated to literal infringement. On appeal, the Federal Circuit, reversed the claim construction of the lower court and held that, based on the correct construction, as a matter of law, there was no literal infringement.

## **B. Federal Circuit Reversal Rates and Related Inefficiencies**

Since the *Markman* decision, the Federal Circuit considered *en banc* what standard of review would be applied to claim construction rulings after the lower court issued a dispositive ruling. In *Cybor*, a majority of the court held that claim construction is a purely legal question and should be reviewed in its totality *de novo*. The court also stated that *de novo* review would apply to any fact-based findings necessary for the claim construction inquiry. In so holding, the court expressly overruled any prior cases that described claim construction as a "mongrel practice" involving mixed questions of fact and law. *Cybor Corp.*, 138 F.3d at 1456 ("[W]e reaffirm that, as a purely legal question, we review claim construction *de novo* on appeal including any allegedly fact-based questions relating to claim construction. Accordingly, we today disavow any language in previous opinions of this court that holds, purports to hold, states, or suggests anything to the contrary"). Although its review is *de novo*, the Federal Circuit has emphasized that it will "begin with and carefully consider the trial court's work." *Apple Computer, Inc. v. Articulate Sys., Inc.*, 234 F.3d 14, 20 (Fed. Cir. 2000) (quoting *Key Pharm. v. Hercon Labs., Corp.*, 161 F.3d 709, 713 (Fed. Cir. 1999)). Thus, appellate review of claim construction issues is now conducted *de novo*, although the court will consider the district court's opinion and reasoning.

Concerns have been raised about this approach, however. One commentator stated that:

Despite good intentions, the *Markman* ruling has led to adverse consequences. The underlying problem lies in the fact that the Federal Circuit interpreted the Supreme Court's holding in *Markman* as an allowance of *de novo* appellate review of claim constructions. The Federal Circuit takes its plenary review power seriously and has stated that no deference should be given to a trial court's claim construction on appeal. As a result of this stance, the Federal Circuit reverses, in whole or in part, a surprisingly high number of claim constructions on appeal. In

fact, the rate of reversal hovers around forty percent. This phenomenon greatly undermines the expected beneficial consequences of *Markman*: early certainty, reduced litigation costs, and enhanced judicial efficiency. In fact, a forty percent reversal rate is close to the worst possible rate for promoting certainty. Even a significantly higher rate would be more certain because parties could at least assume probable reversal.

G. Dawson, "Matchmaking in the Realm of Patents: A Call for the Marriage of Patent Theory and Claim Construction Procedure," 79 *Tex. L. Rev.* 1257 (Apr. 2001).

This is not the only commentator to notice the problems associated with the unavailability of interlocutory appeal for claim construction determinations. *See, e.g.*, Victoria Slind-Flor, *The 'Markman' Prophecies: Six Years After the U.S. Supreme Court Altered the Patent System, the Worst Fears of Lawyers Have Come to Pass*, IP Worldwide, Mar. 13, 2002 (concluding that the *Markman* decision has added uncertainty, costs, and delay to a system where the Federal Circuit reverses district court judges on claim construction rulings 50% of the time).

Other recent empirical research indicates that the reversal rate of district court claim construction is extremely high. For instance, a survey of all the Federal Circuit decisions between January 1998 and April 2000 determined that 47.3% of those decisions are reversed on appeal. Christian Chu, *Empirical Analysis of the Federal Circuit's Claim Construction Trends*, 16 *Berkeley Tech. LJ.* 1075 (2001) (finding that there is an increased trend toward claim construction modifications and claim interpretation-based reversals since *Cybor's* reaffirmation of the *de novo* review standard). Another commentator has found a reversal rate of district court claim constructions about 33% of the time in appeals filed with and considered by the Federal Circuit between 1996 and 2000. With the removal of summary affirmances, this statistic rises to close to 50%. *See* Kimberly A. Moore, *Are District Court Judges Equipped to Resolve Patent Cases?*, 15 *Harv. J.L. & Tech.* 1 (2001).

This high reversal rate is important because when the Federal Circuit reverses a district court's claim construction, it often moots issues relating to validity and infringement that were fully litigated before the district court. Also, once the Federal Circuit construes the claims anew, it remands to the district court for a determination of, *e.g.*, invalidity and infringement, in light of the new claim construction. Thus, the court and the parties must deal with many issues all over again, making the system extremely inefficient.

#### **IV. Conclusion**

Judge Newman of the Federal Circuit has stated that:

Perfection is elusive in the aftermath of the Federal Circuit's decision in *Markman*. The expectation of greater stability in the application of patent law—thus enhancing consistency in result, reducing the cost of litigation, and

indeed reducing litigation by diminishing the uncertainties of jury trials—has not been well achieved.

*Cybor*, 138 F.3d at 1478 (Newman, J., additional views).

District court judges have spoken more bluntly. Judge Samuel Kent of the Eastern District of Texas stated during a summary judgment hearing in *O.I. Corp. v. Tekmar Co.*, “Frankly, I don’t know why I’m so excited about trying to bring this [patent case] to closure. It goes to the Federal Circuit afterwards. You know, it’s hard to deal with things that are ultimately resolved by people wearing propeller hats. . . . I could say that with impunity because they’ve reversed everything I’ve ever done, so I expect fully they’ll reverse this, too.” *O.I. Corp. v. Tekmar Co.*, No. 95-CV-113 (S.D. Tex. June 17, 1996), *aff’d*, 115 F.3d 1576 (Fed. Cir. 1997).

While the procedures for implementing *Markman* claim construction procedures seem to be crystallizing, it is clear that the hopes for speed, certainty, and reduced resource expenditures in resolution of patent cases have not yet been achieved. Whether they will be resolved remains to be seen.

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# Markman Hearings In Perspective

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## Markman Hearings in Perspective

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### Introductions

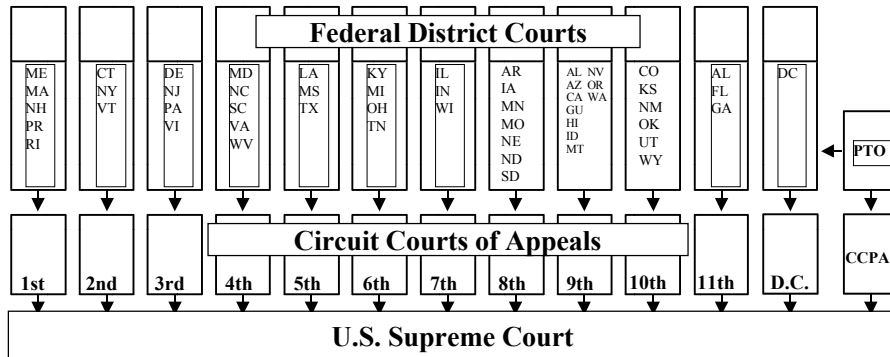
- Audience
- John Anderson
- Liam O'Grady
- Rod McKelvie
- Fred Jorgenson

### Agenda

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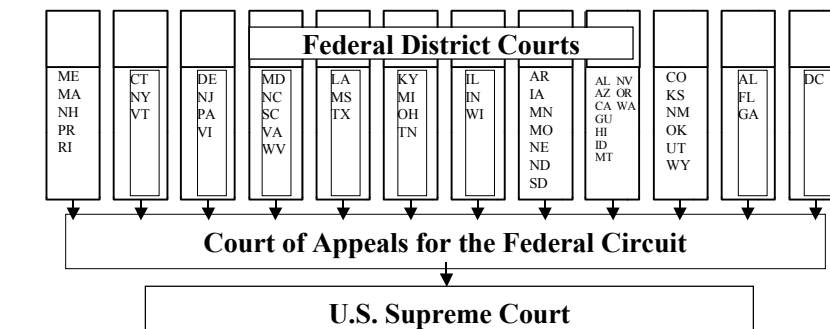
**Prior to Creation of the U.S. Court of Appeals for the Federal Circuit (CAFC)**

- > 12 different Courts of Appeal with no specialized patent judges
- > Conflicting decisions
- > Large discrepancies in damage calculations



**Court Structure after Federal Circuit**

- > One court hears all patent appeals -- conflicting decisions conformed
- > Certainty = valuable patents & promotion of commerce





## Markman Hearings

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- *Markman v. Westview Instruments*
    - What is a *Markman* hearing?
    - What does it mean?
  
  - Claim construction
  
  - Impact of the *Markman* case on courts
- 

## *Markman v. Westview Instruments* (517 U.S. 370 (1996))

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### Facts

- Inventory Control and Reporting System for Dry Cleaning Stores
  - Employees log the progress of clothing
  - And, the invention will
    - Maintain an inventory total
    - Detect . . . spurious additions to the inventory
-

***Markman v. Westview Instruments,***  
***(517 U.S. 370 (1996))***

---

District Court

- Jury compared the patent to Westview's device and finds infringement
  
- The Court granted Westview's motion for judgment as a matter of law  
... "inventory" encompasses cash inventory and physical inventory

Federal Circuit

Held that claim interpretation was a matter of law

Issue

- Is claim interpretation a matter for judge or jury?
- 

***Markman v. Westview Instruments,***  
***(517 U.S. 370 (1996))***

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Holding

- Aff'd Court of Appeals for the Federal Circuit
- Construction of patent terms is exclusive province of the court
- Claim construction is subject to de novo review on appeal

Rationale

- Claim construction is not a jury issue, but is a matter of law
    - Historical precedent; training and discipline; uniformity
-

## Wide Discretion

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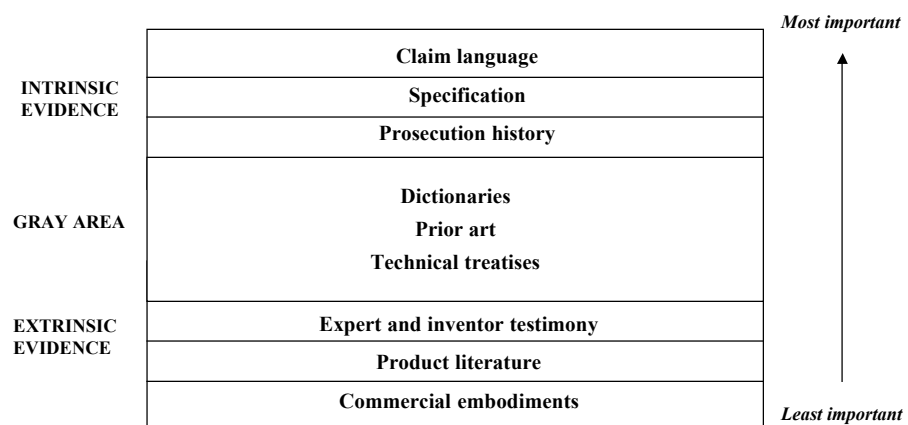
“Markman does not require a district court to follow any particular procedure in conducting claim construction . . . As long as the trial court construes the claims to the extent necessary to make a ruling whether the accused device infringes, the court may approach the task in any way that it deems best.”

*Ballard Medical Prods. V. Allegiance Healthcare Corp., No. 00-1393 (Fed. Cir. Oct. 2001)*

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## Claim Construction

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## Timing of *Markman* Hearings

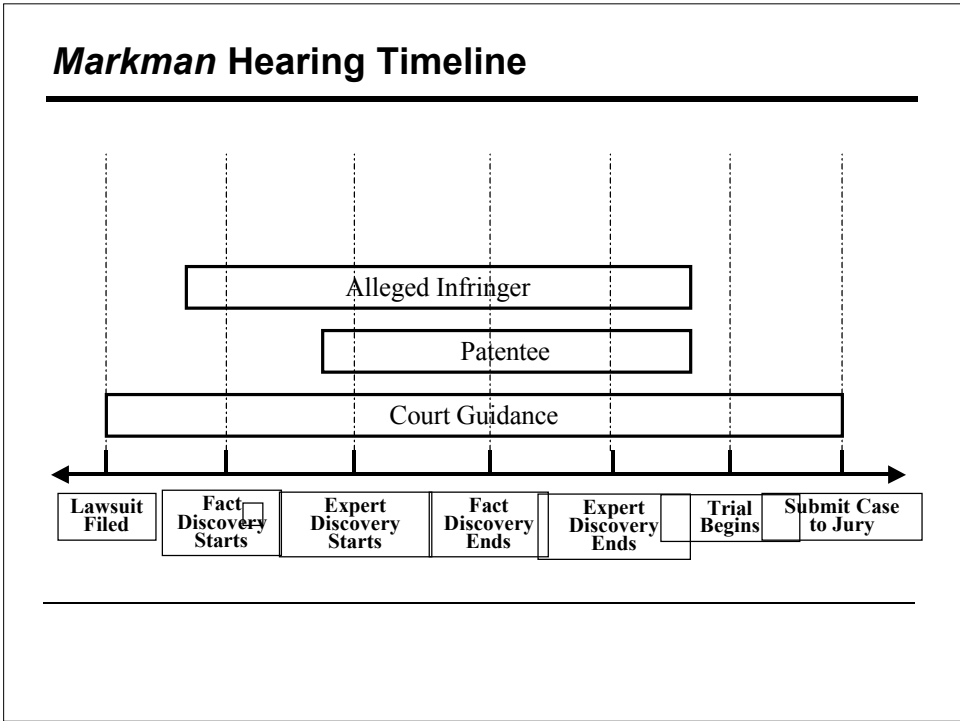
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- Trial court may “exercise its discretion” in deciding if and when to hold a *Markman* hearing
  - The focus in construing the claim is the meaning to one of ordinary skill in the art at the time of the invention
  
  - One absolute requirement
    - The hearing may occur at any time after a lawsuit is filed, but must be completed prior to the beginning of jury deliberations
- 

## Result of *Markman v. Westview*

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- Most courts now hold a “Markman” hearing
  
  - Uniformity of claim interpretation has been undercut by reversal rate at the Federal Circuit
    - The Federal Circuit may also adopt its own claim construction
  
  - Nevertheless, a Markman hearing can be outcome determinative
-



### Claim Interpretation Example 1

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***Glaxo Group v. Ranbaxy Pharmaceuticals (262 F. 3d 1333)***

Facts

- Patent claim described an antibiotic material “essentially free” of crystalline material
- Accused infringer’s material contained 10- 15% of a crystalline material

Issue

How should “essentially free” be interpreted in this patent?

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## Claim Interpretation Example 1 (cont.)

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### ***Glaxo Group v. Ranbaxy Pharmaceuticals* (262 F. 3d 1333)**

- Holding
    - The accused product did not infringe
  
  - Rationale
    - Prosecution history of patent application included a British priority application which limited the patent claim to products with 10% or less of crystalline material
- 

## Claim Interpretation Example 2

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### ➤ ***Lizardtech v. Earth Resource Mapping***

➤ ***No. 01-1343 (2002 WL 1042168) (Fed. Cir. May 2002)***

- Facts
    - Claim to method for storing digital images recited breaking the image into tiles
    - Specification's tile had four corners
    - Accused infringer broke image into rows of pixels
  
  - Issue
    - Can claim cover row method -- even though tiles commonly have four corners, which specification discussed?
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## Claim Interpretation Example 2 (cont.)

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➤ ***Lizardtech v. Earth Resource Mapping***

➤ **No. 01-1343 (2002 WL 1042168)** (*Fed. Cir. May 2002*)

➤ Holding

➤ A “Tile” can be a single row of pixels.

➤ Rationale

- Claims are construed from the perspective of one skilled in the art, not from the perspective of a lay person
  - Those skilled in the art would recognize, upon reading the entire specification, that there is no reason that a “tile” could not be composed of a row of pixels
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## Claim Interpretation Example 3

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*Wenger Manufacturing v. Coating Machinery* (239 F. 3d 1225)

Facts

- Dryer for food products
- Claim recited “air circulating means ... for circulating air through said reel”
- Preferred embodiment illustrated recirculating air structure

Issue

Does limitation include structure to allow recirculation of air ?

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### **Claim Interpretation Example 3 (cont.)**

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*Wenger Manufacturing v. Coating Machinery* (239 F. 3d 1225)

#### **Holding**

“Air circulating means” does not include recirculating structure.

#### **Rationale**

- In construing a means-plus-function limitation, a court must not import (1) functional limitations not recited in the claim, or (2) structural limitations unnecessary to perform the claimed function
  - “Circulate” means move
  - Dependent claim recites means for recirculating
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### **General Comments**

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- A few thoughts about the impact of Markman from the Trial Lawyers
  - A few thoughts from In-House Counsel
  - A view from the bench
    - Impact of Markman from one Judge’s viewpoint
    - Impact of Markman on the Judiciary in General
    - As this Judge approaches a Markman Hearing
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## **Markman Hearings**

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Moving from Markman in theory to Markman in practice

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